

1. Municipal Solid Waste Definition

- Municipal solid waste (MSW), more commonly known as trash, comprises various items we commonly throw away. These items include packaging, food, grass clippings, sofas, computers, tires and refrigerators. This definition does not include materials that also may be disposed in non-hazardous landfills, but are not generally considered MSW, including: construction and demolition (C&D) debris; municipal wastewater treatment sludges; and non-hazardous industrial wastes. *(Facts and Figures report)*
- MSW is a subset of solid waste and is defined as durable goods (e.g. appliances, tires, batteries) nondurable goods (e.g. newspaper, books, magazines), containers and packaging, food wastes, yard trimmings and miscellaneous organic waste from residential, commercial and industrial non-process sources. *(Resource Conservation and Recovery Act (RCRA) 2014 Orientation Manual)*

2. Recycling Definitions (EPA)

- Recycling is defined as the recovery of useful materials, such as paper, glass, plastic and metals, from the municipal solid waste (MSW), along with the transformation of the materials, to make new products to reduce the amount of virgin materials needed to meet consumer demands. *(Facts and Figures Report)*
- Recycling is defined as the recovery of materials, such as paper, glass, plastic, metals, construction and demolition (C&D) material and organics from the waste stream (e.g., municipal solid waste), along with the transformation of materials, to make new products and reduce the amount of virgin raw materials needed to meet consumer demand. *(Recycling Economic Information Report).*
- Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Recycling can benefit your community and the environment. *(EPA Recycling website)*
- Recycling is a series of activities that includes collecting used, reused, or unused items that would otherwise be considered waste; sorting and processing the recyclable products into raw materials; and remanufacturing the recycled raw materials into new products. Consumers provide the last link in recycling by purchasing products made from recycled content. Recycling also can include composting of food scraps, yard trimmings, and other organic materials. *(EPA non-hazardous waste management hierarchy)*

8/26/2019

America Recycles (AR) Measurement Working Group Recycling Definitions

- MSW recycling refers to the separation and collection of wastes, their subsequent transformation or remanufacture into usable or marketable products or materials, and the purchase of products made from recyclable materials. *(RCRA 2014 Orientation Manual)*
- Recycling refers to the series of activities by which discarded materials are collected, sorted, processed and converted into raw materials to be used as feedstock and are used in the production of new products. *Excludes* the use of these materials as fuel substitutes or for energy production *(EPA's archived Recycling Measurement Guide and adapted from National Recycling Coalition 1995/State Measurement Program)*.

3. Recycling Definitions (non-EPA)

- Recycling is a series of activities in which material is processed into specification-grade commodities and consumed as raw material feedstock, in lieu of virgin materials, in the manufacture of new products. The series of activities that make up recycling include the collection, processing, brokering and subsequent consumption of industrial, end-of-life and obsolete scrap, as well as the process of transforming used products, whole or in part, into reusable commodities. *(Institute of Scrap Recycling Industries)*
- Recycling is the collection, sorting, marketing, processing and transforming or remanufacturing of recyclable materials and recycled products, including marketing thereof; and the purchase and use of recycling products. *(Solid Waste Association of North America)*
- Recycling is a series of activities by which material that has reached the end of its current use is processed into material utilized in the production of new products. *(National Recycling Coalition)*
- At least 60% of consumers or communities have access to a collection system that accepts the item. The item is most likely sorted correctly into a market-ready bale of a particular plastic meeting industry standard specifications, through commonly used material recovery systems, including single-stream and dual stream MRFs, PRF's, systems that handle deposit system containers, grocery store rigid plastic and film collection systems. The item can be further processed through a typical recycling process cost effectively into a postconsumer plastic feedstock suitable for use in identifiable new products. *(Association of Plastic Recyclers)*
- Recycling means transforming or remanufacturing waste materials into usable or marketable materials for use other than landfill disposal or incineration. Recycling includes processing waste materials to produce tangible commodities. *(Washington State, Chapter 173-350 WAC)*

4. Discussion Questions

- Should we use the following definition of MSW as the basis of defining recycling: MSW, more commonly known as trash, comprises various items we commonly throw away. These items include packaging, food, grass clippings, sofas, computers, tires and refrigerators. This definition does not include materials that also may be disposed in non-hazardous landfills, but are not generally considered MSW, including: construction and demolition (C&D) debris; municipal wastewater treatment sludges; and non-hazardous industrial wastes. This definition is limited to post-consumer MSW.
- What criteria should be used to define recycling:
 - What are the steps in the recycling process (e.g. collection, sortation, processing, baling and end-use)
 - Should recycling be limited to post-consumer MSW or should it include pre-consumer materials?
 - What is the end-product of recycling? Does the purchase of recycled-content products have to be included in the definition of recycling?
 - Does recycling only include the physical transformation of a product or can it include the chemical and biological transformation?
 - Should composting be included in the definition?
 - Should energy recovery (such as fuel conversion) be included in the definition?
- The definition of recycling includes manufacturing recycled materials into new products. Should it also include consumer's purchase of those products?
- The word remanufacturing has a specific connotation in the construction/building industry. Should we use the word transforming in lieu of remanufacturing?
- The recycling process includes collection, sorting, processing and transforming materials into new products. Is this the complete picture or do we need to add any steps?
- The current definitions of recycling refer to a **physical** process, which includes sorting and processing materials such as aluminum, paper, cardboard, plastics, textiles and glass into products. The intent of this definition is to reuse a specific material and transform it into a new product, which has similar **physical** characteristics of the original material. The definition does not include chemical or biological recycling. The definition includes composting of food scraps, yard trimmings and other organic materials. The definition excludes the use of recyclable materials as a fuel substitute, for energy production and/or alternative daily cover.

5. Key Results and Takeaways from AR Measurement Workgroup (7/16)

- A simpler definition of recycling such as the one by National Recycling Coalition is better. A simpler definition can be paired with descriptors such as “industrial” recycling, “municipal” recycling, etc.
- Do not differentiate between pre-and post-consumer recycling in the definition.
- Any definition needs to be scientifically correct and align with ISO standards.
- The definition should not include purchase of recycled materials.
- The definition should be open to the concept of chemical and biological recycling.
- Energy recovery should be kept separate from recycling as indicated in EPA’s non-hazardous waste management hierarchy.

6. Proposed Definition (based on feedback from AR Measurement Workgroup)

- Recycling refers to the series of activities by which discarded or used materials are collected, sorted, processed and/or converted into feedstock and are used in the manufacture of new products. *Excludes* the use of these materials for energy production or as fuel substitutes as well as for composting.